

# EUROPEAN PATENT OFFICE

## Pat nt Abstracts of Japan

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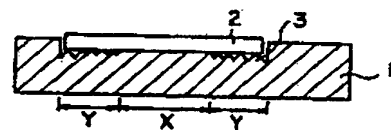
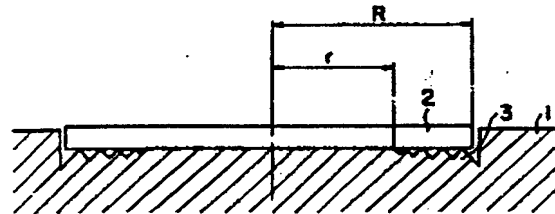
APPLICATION DATE : 17-06-85  
APPLICATION NUMBER : 60131374

APPLICANT : TOSHIBA CORP;

INVENTOR : SAMATA SHUICHI;

INT.CL. : H01L 21/205 H01L 21/31 // H01L 21/22

TITLE : SUSCEPTOR FOR HEATING OF  
SEMICONDUCTOR SUBSTRATE



**ABSTRACT :** **PURPOSE:** To contrive improvement in the yield of production and in the reliability of the title susceptor by a method wherein the contact density of the part, which comes in contact with the center of the semiconductor substrate of a heating susceptor, is made higher than that of the part coming into contact with the circumference of the substrate, so that the semiconductor substrate is brought in the state wherein it can be heated up uniformly.

**CONSTITUTION:** A recess is provided on a susceptor 1, and a semiconductor substrate 2 is placed on the recess. The recess is divided into a center part X and a circumferential part Y, and the center part X has a flat surface which is surface-contacted with the semiconductor substrate 2. A plurality of cone-shaped protrusions 3 are provided on the circumferential part Y, and they are point-contacted to the semiconductor substrate 2. The density of the cone-shaped protrusion 3 is set in such a manner that it becomes smaller as the radius of the semiconductor substrate 2 increases. A uniform temperature distribution can be ideally obtained by having the contact density of the center part higher than that of the circumferential part through the above-mentioned procedures. The inversion of the thermal stress direction of circumferential direction in the position (r) away from the center of the semiconductor substrate becomes the major cause of generation of crystal defects. Therefore, the generation of crystal defects is prevented by changing the transmission mechanism from the position wherein said inversion is generated.

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